



Repeater: NØDX 145.190 MHz (Input 144.590 / Tone 192.8 Hz)


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The Eastern Iowa DX Bulletin

Number 201, December 22, 2023

Craig Fastenow, KØCF, Editor

This bulletin is a compilation of **currently active** DX operations (or those that will become active within the current week) from recent issues of the three DX bulletins listed below and other sources. Credit for the source is given at the end of each article.

Articles are ordered by the entity's callsign prefix from the *ARRL DXCC Entities List*. Callsigns used are in **bold** with dates of operation highlighted in **red**. Clickable links are provided for QSL and other information wherever possible. Articles will remain in *The Bulletin* while active, but with a 5-week maximum.

Also included is a [Propagation](#) section, updated daily; and a [Contest Calendar](#) of upcoming popular contests.

DX News items are courtesy of:

The ARRL DX Bulletin

The bulletin is available at <http://www.arrl.org>

425 DX News, A.R.I. DX Bulletin (425DXN)

Edited by Mauro Pregliasco, I1JQJ & Valeria Pregliasco, IK1ADH

425 DX News Home Page: <https://www.425dxn.org/>

425 DX News Google Group: <https://groups.google.com/g/425eng>

DX Newsletter (DXNL)

Edited by Andreas Salder, DK5ON

A weekly service of DARC Committee "DX", <http://www.darcdxhf.de>

Propagation data is from the National Oceanic and Atmospheric

Administration's [Space Weather Prediction Center](#)

Contest data courtesy of the [WA7BNM Contest Calendar](#)



Solar-Terrestrial Data

23 Dec 2023 1327 GMT
 SFI: 187 SN: 125
 A-Index: 4
 K-Index: 1
 X-Ray: C1.4
 304Å: 159.7 @ SEM
 Ptn Flx: 21
 Elc Flx: 1850
 Aurora: 3/n=1.99
 Mag (Bz): -6.7
 Solar Wind: 343.9
 Geomag Field VR QUIET
 Sig Noise Lvl S0-S1
 Current Solar Image



<http://www.norbh.com>
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 Solar data courtesy of:
 Solar Data Banners & Widgets

DX News

3B9, RODRIGUES ISLAND. Luca, IV3JVJ and Ivan, IK3ZAA will be QRV as **3B9AT** from **December 27th to January 6th**. Activity will be on 80 to 10 meters using CW, SSB, and FT8. QSL via [IV3JVJ](#).

-[ARRL DX Bulletin # 51 December 21, 2023] (1222-0105)

3W, VIET NAM. Look for **3W9IL** (JF3PLF), **3W9LSV** (JR3LSV), **3W9TXR** (JH3TXR), **3W9YAA** (JA3YAA), **XV9HS** (JA6FWJ) and **XV9KL** (JN3JBC) to be active holiday style from Hanoi, Vietnam from **December 21st to 30th**. They will operate SSB, CW, RTTY and FT8 on 80-6 meters. Check qrz.com for the QSL routes.

-[425DXN # 1703 December 23, 2023] (1222-1229)

3W, VIET NAM. Hiro, JA6FWJ will be QRV as **XV9S** from Ha Noi from **December 25th to 29th**. QSL via operator's instructions.

-[ARRL DX Bulletin # 51 December 21, 2023] (1222-1229)

3W, VIET NAM. Roman, RN5M is QRV as **XV9MA** from Mui Ne. Activity is in his spare time on 160 to 6 meters. His **length of stay is unknown**. QSL via [LY5M](#).

-[ARRL DX Bulletin # 50 December 14, 2023] (1215-0105)

5R, MADAGASCAR. Moise, F4EZG is QRV as **5R8VE** from Nosy Fali (AF-057) **until December 3rd**, and from the main island of Madagascar (AF-013) **December 5th to January 3rd, 2024**. Activity is on 20 to 10 meters using SSB and FT8. QSL to [F4EZG](#).

-[ARRL DX Bulletin # 48 November 30, 2023] (1201-0105)

6Y, JAMAICA. Akira, JA7FYF, is currently active as **AC6XT/6Y** on 30-10m (CW) **until January**. QSL via [JA7FYF](#).

-[DXNL # 2384 December 13, 2023] (1215-0105)

7Q, MALAWI. Don, K6ZO is QRV as **7Q6M** from Embangweni **until May 13, 2024**, and has been active on 160 meters. QSL via LoTW.

-[ARRL DX Bulletin # 48 November 30, 2023] (1201-0105)

9N, NEPAL. Hoping for "some decent low band runs", Robert, **9N7AA** has rented a bungalow over the winter period. It is located "at the edge of Kathmandu valley but much higher, with a clear shot from 270-90 degrees, and far enough not to suffer from the crazy man-made noise I have in Kathmandu". He will be there **on December 8th for two nights** and **then during "selected weekends" until the end of February**. Bookmark <https://www.qrz.com/db/9N7AA> for updates.

-[425DXN # 1701 December 9, 2023] (1208-0112)

C9, MOZAMBIQUE. Eddy, OE3SEU, travels in Mozambique **during December** and will be active as **C91SEU/p** via the QO-100 satellite. QSL only via LoTW.

-[DXNL # 2383 December 6, 2023] (1208-1229)

CE9, ANTARCTICA. David, VK2JDS, has reached the Davis Antarctic Base (VKFF-0568 Park) and operates as **VKØDS** during his spare time. QRV on HF and on 2m and 23cm via EME. He stays **until November 2024**. QSL direct via [VK2JDS](#), LoTW.

-[DXNL # 2385 December 20, 2023] (1222-0126)

CE9, ANTARCTICA. A member of the 69th Russian Antarctic Expedition, Igor, RQ8K will be stationed at Progress Station, Antarctica **until the end of April 2025**. In his spare time, he is active as **RI1ANE**.

-[425DXN # 1702 December 16, 2023] (1215-0119)

CE9, ANTARCTICA. Juan, LU8DBS is QRV as **L36Z**, **LU1ZV**, and **LU8DBS/Z** from Base Esperanza. Activity is in his spare time on 80 to 10 meters using SSB, PSK31, and FT8. His **length of stay is unknown**. QSL via [LU4DXU](#).

-[ARRL DX Bulletin # 49 December 7, 2023] (1208-0112)

CN, MOROCCO. Yannick, F6FYD will be active as **CN2YD** from Marrakech, Morocco from **December 1st to March 15, 2024**. He plans to operate as CN2YD/p from IOTA group AF-065 sometime during his stay. QSL via [F6FYD](#).

-[425DXN # 1699 November 25, 2023] (1124-1229)

DXCC TOP TWENTY. Here are the top 20 entities on ClubLog's "DXCC Most Wanted" list as of December 22, 2023:

- | | |
|---------------------------|--|
| 1. P5 DPRK (North Korea) | 11. 3Y/B Bouvet Island |
| 2. BS7H Scarborough Reef | 12. ZS8 Prince Edward & Marion Islands |
| 3. CEØX San Felix Islands | 13. KH4 Midway Island |
| 4. BV9P Pratas Island | 14. VKØM Macquarie Island |
| 5. KH7K Kure Island | 15. PYØS Saint Peter And Paul Rocks |
| 6. KH3 Johnston Island | 16. PYØT Trindade & Martim Vaz Islands |
| 7. FT/G Glorioso Island | 17. KP5 Desecheo Island |
| 8. 3Y/P Peter 1 Island | 18. VP8S South Sandwich Islands |
| 9. FT5/X Kerguelen Island | 19. KH5 Palmyra & Jarvis Islands |
| 10. YVØ Aves Island | 20. ZL9 New Zealand Subantarctic Islands |

For the complete list, see <https://clublog.org/mostwanted.php>

-[KØCF December 22, 2023] (1222-0112)

E6, NIUE. Sigfrido, IW9FMD is working in Alofi and is active in his spare time as **E6S** on the H/VHF bands. QSL via [IT9YVO](https://www.clublog.org/qsl/).

-[ARRL DX Bulletin # 49 December 7, 2023] (1208-0112)

EA, SPAIN. Celebrating Christmas and the New Year, members of Radio Club Liria (EA5RCL) will be active as **EH5XMAS** from **December 7th to January 7th**. QSL via the bureau to [EA5RCL](https://www.clublog.org/qsl/), LoTW and eQSL.

-[425DXN # 1700 December 2, 2023] (1201-0105)

EA6, BALEARIC IS. Simon, G7WKX is QRV as **EA6/G7WKX** from Mallorca, (EU-004) **until January 4th**. Activity will be on the HF bands. This includes being active from some POTA and SOTA references. QSL via operator's instructions.

-[ARRL DX Bulletin # 51 December 21, 2023] (1222-0105)

F, FRANCE. Michel, F8GGZ will be active as **TM1ØØGE** on **December 22nd-31st**. The special callsign memorializes the 100th anniversary since the death of Gustave Eiffel (December 27, 1923), the French civil engineer best known for the world-famous Eiffel Tower, built for the 1889 Universal Exposition in Paris, and his contribution to building the Statue of Liberty in New York. QSL via the bureau.

-[425DXN # 1702 December 16, 2023] (1222-0105)

F, FRANCE. The Radio Club de Valenciennes, F6KJU, celebrates its 50th anniversary with the callsign **TM5ØKJU** **until December 23rd**.

-[DXNL # 2385 December 20, 2023] (1222-1229)

F, FRANCE. The radio club Wingles (F4KLR) commemorates the first wireless contact between the Eiffel Tower and the Paris Pantheon (distance of 4km) 125 years ago with the callsign **TM125ED** from **December 23rd to 31st**.

-[DXNL # 2385 December 20, 2023] (1222-0105)

FJ, SAINT BARTHELEMY. Phil, K2LIO is QRV as **FJ4WEB** and plans to be QRV **until August 15, 2024**. QSL to [K2LIO](https://www.clublog.org/qsl/).

-[ARRL DX Bulletin # 51 December 21, 2023] (1222-0126)

FK, NEW CALEDONIA. Jean-Louis, F5NHJ is active again as **FK/F5NHJ** from New Caledonia's main island (Grande Terre, OC-032), with side trips to nearby Ile des Pins (also OC-032) **until mid-January 2024**. He operates digital modes, CW and SSB on 80-6m. He will upload his log to ClubLog and LoTW.

-[425DXN # 1699 November 25, 2023] (1124-1229)

FW, WALLIS AND FUTUNA I. Martin, **FW4AT** is QRV on 40 to 6 meters using FT8. QSL to [FW4AT](https://www.clublog.org/qsl/).

-[ARRL DX Bulletin # 51 December 21, 2023] (1222-0126)

HB, SWITZERLAND. Special event station **HB8DELOY** is QRV **until the end of 2023** to commemorate the first transatlantic contact that took place on November 28, 1923 between stations 8AB and 1MO. QSL via [HB9ACA](https://www.clublog.org/qsl/).

-[ARRL DX Bulletin # 51 December 21, 2023] (1222-0105)

HR, HONDURAS. Gerard, F2JD will be active again as **HR5/F2JD** from Copan, Honduras from **November 25th to March 21st, 2024**. He will operate CW, SSB and FT8/ FT4 on the HF bands. QSL via [F6AJA](https://www.clublog.org/qsl/); log search on <http://LesNouvellesDX.fr/voirlogs.php>.

-[425DXN # 1695 October 28, 2023] (1124-1229)

HS, THAILAND. Brad, VK2BY will be active again as **HSØZNR** from the Nam Yuen

district in northeastern Thailand from **December 6th to January 14th**. He will be QRV on 160-10 meters and will focus on working stations "that contribute to LoTW and eQSL".

QSL direct to [VK2BY](#) and LoTW.

-[425DXN # 1699 November 25, 2023] (1201-0105)

J8, ST. VINCENT. Gert, PA2LO will be active as **J8TT** from St. Vincent (NA-109) from **December 26th to January 5th**. He will operate SSB, CW and digital modes on 40 to 6 meters. QSL via [ClubLog's OQRS](#) (preferred), LoTW, or via [PA2LO](#).

-[425DXN # 1702 December 16, 2023] (1222-0105)

JD1/O, OGASAWARA. Once again Harry, JG7PSJ will be active as **JD1BMH** from Chichijima (AS-031), Ogasawara from **December 23rd to January 1st**. He will operate CW, SSB and RTTY on 40-10m. QSL via JD1BMH (bureau), or direct to [JG7PSJ](#). Logsearch on <http://jg7psj.starfree.jp/jd1bmh/>. He does not use LoTW or PayPal.

-[425DXN # 1703 December 23, 2023] (1222-0105)

K, UNITED STATES. Richard, K2ZR, signs **K2ZR/4** from the Florida Keys (NA-062) from **December 15th to the end of the year**. QSL via [K2ZR](#).

-[DXNL # 2384 December 13, 2023] (1215-0105)

K, UNITED STATES. He cannot provide specific dates, however Matt, AF2F will be visiting Long Beach Island (NA-111) "quite frequently on business throughout the **month of December**, probably **extending into January** with a week-long break for holidays". He will be active as **AF2F/2** on 10 and 12 meter CW, possibly with some FT8 later. QSL via [ClubLog's OQRS](#).

-[425DXN # 1701 December 9, 2023] (1208-0112)

OE, AUSTRIA. Members of the OE3XDC Radio Club will be active as **OE2Ø5XMAS** from **December 23rd to January 6th**. Look for activity on 80, 40, 20, 15 and possibly 160 meters SSB and FT8, as well as via QO-100. The special callsign marks the 205th anniversary of "Stille Nacht" ("Silent Night"), one of the most popular Christmas carols, composed in 1818 by Franz Xaver Gruber to lyrics by Joseph Mohr. QSL via the bureau, eQSL, or direct.

-[425DXN # 1703 December 23, 2023] (1222-0105)

OE, AUSTRIA. Special event station **OEØYOTA** is QRV **until December 31st** during the Youth On The Air event. QSL via operators' instructions.

-[ARRL DX Bulletin # 51 December 21, 2023] (1222-0105)

OH, FINLAND. Once again Santa Radio, **ØF9X** (Old Father Nine Xmas) will be active on **December 11th-31st** on all amateur radio bands CW, SSB and FT8. QSL via [ClubLog's OQRS](#), or via [ØH2BH](#). The activity is organized by Radio Club of Pusula (ØH9W) and Radio Arcala (ØH8X). The operating team includes Timo ØH1NX, Raimo ØH2BCI, Martti ØH2BH, Niko ØH2GEK, Arto ØH2KW, Erik ØH2LAK, Pekka ØH2TA, Pauli ØH5BQ, Anne ØH2YL, Jukka ØH2MA, Jorma ØH2KI, Jyri ØH2KM, Juha ØH2LQ, Henri ØH3JR, Risto ØH3UU, Tapani ØH5BM, Alex ØH5UY/UT5UY, Veijo ØH6KN, Mika ØH6NVC and Esa ØH8KTN.

-[425DXN # 1701 December 9, 2023] (1208-1229)

OK, CZECH REPUBLIC. Special event station **ØL3ØØSANTINI** is QRV **until the end of 2023** to honor the memory of Bohemian architect Jan Blazej Santini-Aichl. QSL via [ØK2APY](#).

-[ARRL DX Bulletin # 51 December 21, 2023] (1222-0105)

OK, CZECH REPUBLIC. The radio club ØK1KVK celebrates its 70th anniversary with the callsign **ØL7ØKVK**. QSL via [ØK6RP](#).

-[DXNL # 2385 December 20, 2023] (1222-0119)

PA, NETHERLANDS. Look for **PC1ØØII** to be active **throughout December** to celebrate the centenary of the third 2-way contact between Europe and America conducted by Henk

Jesse, PCII in the Netherlands and 2AGB in the US during the night of December 26-27, 1923. QSL via [ClubLog's OQRS](#), LoTW, or via [PA1AW](#).
-[425DXN # 1701 December 9, 2023] (1208-1229)

PA, NETHERLANDS. Celebrating Christmas and the New Year, special callsigns **PA23XMAS** and **PD23SANTA** will be active on **December 1st-31st**, while **PD24HNY** will be QRV **until January 31st**. QSL cards will not be issued, but a certificate will be available (see <https://www.qrz.com/db/PA23XMAS>).
-[425DXN # 1699 November 25, 2023] (1124-1229)

PJ2, CURACAO. Jeff, K8ND is QRV as **PJ2ND**. Activity is on the HF bands. He plans to be QRV as **PJ2T** in the ARRL 160 Meter contest (**December 1st-3rd**), and the upcoming ARRL 10 Meter (**December 9th-10th**), Stew Perry Topband DX Challenge (**December 30th-31st**), and the CQ World Wide 160 Meter CW (**January 26th-28th**) contests. QSL PJ2ND to [K8ND](#), and PJ2T via [KU9C](#).
-[ARRL DX Bulletin # 48 November 30, 2023] (1201-0105)

PJ7, SINT MAARTEN. Edmondo, VA3ITA will be active holiday style as **PJ7/VA3ITA** from Sint Maarten (NA-105) from **December 24th to 31st**. He will operate SSB and digital modes on 40-10 meters. QSL via LoTW only.
-[425DXN # 1702 December 16, 2023] (1222-0105)

PY, BRAZIL. Daniel, PT7BI and others will be active as **PT7AA** on **December 23rd-30th** from three World Wide Flora & Fauna sites in the Brazilian state of Ceara, namely the Coco State Park and the Environmental Protection Areas of Rio Pacoti and Sabiaguaba. They will operate SSB, CW and FT8 on 80-10 meters. All logs will be uploaded to the WWFF website: <https://wwff.co/>.
-[425DXN # 1702 December 16, 2023] (1222-1229)

S5, SLOVENIA. Special event station **S524PMC** will be active from **December 8th to January 8, 2024**, to promote the PMC Contest, sponsored by the Radio Club Slovenj Gradec (S59DCD). The International Association of Peace Messenger Cities was established in 1988 to recognize and encourage the role and responsibility cities have in creating a culture of peace. The PMC Contest, promoting contacts between stations located in the Peace Messenger Cities and the rest of the world, will be held on **January 6th-7th**. Complete information can be found on <https://www.s59dcd.si/index.php/sl/>.
-[425DXN # 1699 November 25, 2023] (1208-0112)

SV, GREECE. Special callsign **SZ65RAAG** is the for the Radio Amateur Association of Greece to celebrate its 65th anniversary on **December 16th-31st**. The RAAG has been an IARU member society since 1959. Look for activity on all bands SSB, CW and digital modes. Four certificates will be available, see <https://sv2rck.gr/SZ65RAAG/> for information. QSL via LoTW.
-[425DXN # 1702 December 16, 2023] (1215-0105)

T32, EAST KIRIBATI. The Rebel DX Group's **T32TT** operation from Kiritimati/Christmas Island (OC-024), East Kiribati has been extended **until January 12th**. Bookmark <https://www.facebook.com/rebeldxgroup/> for updates. QSL via [ClubLog's OQRS](#).
-[425DXN # 1703 December 23, 2023] (1222-0112)

TG, GUATEMALA. Steve, K4IM is QRV as **TG9AWS**. Activity is on 80 to 6 meters using mainly FT8 but plans to soon be active using CW and SSB as well. His **length of stay is unknown**. QSL via [N2OO](#).
-[ARRL DX Bulletin # 50 December 14, 2023] (1215-0105)

TR, GABON. Roland, F8EN will be active again as **TR8CR** from Gabon from **December 28th until the end of February**. He will operate CW on 30-10m. QSL via F6AJA, logsearch

on <http://LesNouvellesDX.fr/voirlogs.php>.

-[425DXN # 1701 December 9, 2023] (1222-0126)

UA, EUROPEAN RUSSIA. Special callsigns **R12ØRAEM, R12ØA, R12ØD, R12ØI, R12ØK, R12ØM, R12ØN, R12ØR, R12ØS, R12ØT, R12ØW** and **R12ØX** will be active on **December 15th-25th**, particularly on December 24th for the annual RAEM Contest (<https://raem.srr.ru/rules/>). The special callsigns celebrate the 120th anniversary since the birth Ernst T. Krenkel (1903-1971), the legendary Arctic explorer and radioman (callsign RAEM) on various polar stations and on the first drifting ice station North Pole-1. See <https://hamlog.online/club/srr/997/> for the certificate.

-[425DXN # 1702 December 16, 2023] (1215-1229)

V5, NAMIBIA. Eric, F5LCX will be active as **V5/F5LCX** from Namibia from **December 28th to January 11th**. This will be a family trip, and he plans to operate both mobile and fixed for a few hours daily, probably during his evening hours. QSL via LoTW.

-[425DXN # 1702 December 16, 2023] (1222-0112)

V5, NAMIBIA. Marc, ZS6DOT is QRV as **V51NA** from Walvis Bay. Activity is on 40, 20, 17, and 15 meters using mostly SSB. QSL to [ZS6DOT](#).

-[ARRL DX Bulletin # 48 November 30, 2023] (1201-0105)

VK, AUSTRALIA. Members of the Wireless Institute of Australia are QRV as **VK1ØØZL** until **December 31st** to commemorate the first wireless contact 100 years ago between Australia and New Zealand. QSL via bureau.

-[ARRL DX Bulletin # 51 December 21, 2023] (1222-0105)

VK, AUSTRALIA. Special callsign **VK9ØAR** marks the 90th anniversary of AR, the official magazine of the Wireless Institute of Australia until **December 31st**. QSL via bureau or direct.

-[DXNL # 2385 December 20, 2023] (1222-0105)

VP8, FALKLAND IS. Commemorating the 75th anniversary of the Falkland Islands Government Aviation Service, special event station **VP8FLY** will be active from the northeast end of Stanley airport, Falkland Islands (SA-002) during the month of **December**, and especially on **December 19th**. QSL direct to [VP8LP](#).

-[425DXN # 1699 November 25, 2023] (1201-1229)

VU, INDIA. A group of Indian operators are QRV as **AT8T4S** until **January 24th** from the historic city of Palakkad. QSL via [VU3WEW](#).

-[ARRL DX Bulletin # 51 December 21, 2023] (1222-0126)

VU, INDIA. Jose, VU2JOS, celebrates his 50th year in amateur radio with the callsign **AT5ØJOS**. QSL via [VU2JOS](#).

-[DXNL # 2385 December 20, 2023] (1222-0112)

VU, INDIA. Special callsign **AT3ØIIH** marks the 30th anniversary of the Indian Institute of Hams, and educational organization. QSL via bureau, direct, eQSL.

-[DXNL # 2385 December 20, 2023] (1222-0119)

VU4, ANDAMAN & NICOBAR IS. Krish, W4VKU, will be active as **VU4N** from **December 16th to 26th** on 160-6m. For details and FT8 frequencies see:

<https://www.qrz.com/db/vu4n>. QSL via [W4VKU](#), OQRS, LoTW.

-[DXNL # 2384 December 13, 2023] (1215-1229)

XW, LAOS. Vincent, F4BKV is QRV as **XW4KV** until **mid-2024**. Activity is mostly on 15 and 10 meters using FT8. QSL to [F4BKV](#), [ClubLog's OQRS](#), LoTW.

-[ARRL DX Bulletin # 50 December 14, 2023] (1215-0119)

YJ, VANUATU. Mike, VK2BXE, has returned to Port Vila and is active as **YJØMB** on 20-10m. QSL via [VK2BXE](#).

-[DXNL # 2383 December 6, 2023] (1208-1229)

YO, ROMANIA. Special callsign **YR8XMAS** is currently active and remains available on the bands **until January 10th**. QSL only via eQSL or qrz.com.

-[DXNL # 2384 December 13, 2023] (1215-0112)

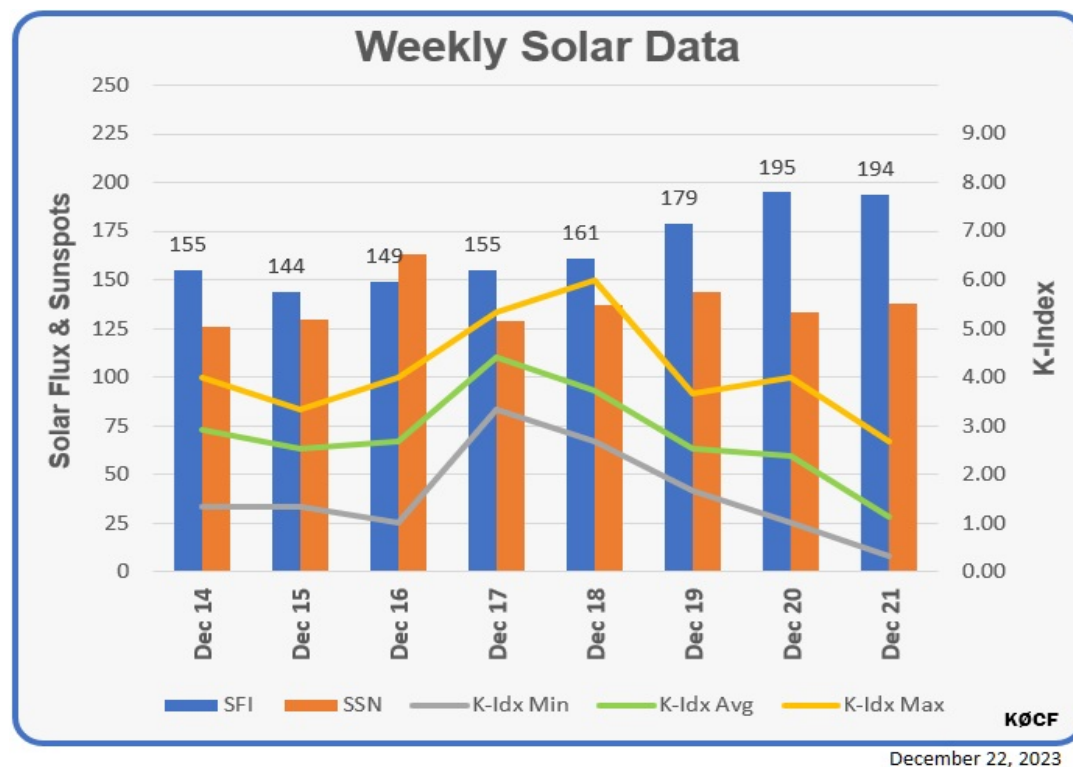
ZD7, ST. HELENA. Chris, HB9FIY and his wife Agata will be QRV as **ZD7CA** and **ZD7AA**, respectively, from **December 16th to January 14th**. Activity will be on 40 to 10 meters using SSB and various digital modes. QSL via [EA5GL](#), LoTW.

-[ARRL DX Bulletin # 50 December 14, 2023] (1215-0119)

ZS, SOUTH AFRICA. Special call sign **ZT1T** is QRV **until January 6th** in remembrance of two South African amateur radio operators who became Silent Keys in 2023. QSL via operators' instructions.

-[ARRL DX Bulletin # 51 December 21, 2023] (1222-0105)

Propagation (Updated daily)



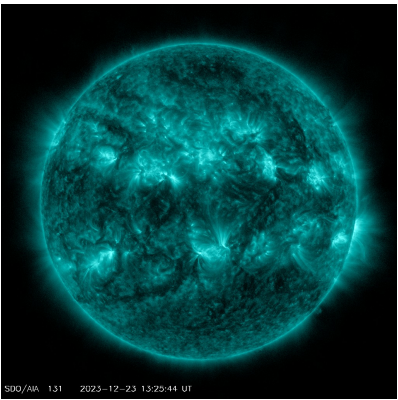
The Weekly Solar Data chart plots Solar Flux Index (SFI), Sunspot number (SSN) and Planetary K-Index (K-Idx) for the past 8 days. With 8 Planetary K-index readings each day, only the minimum, average and maximum K-index values are plotted. **Note:** You may click [here](#) or on the chart above to see the same data for the past month.

The Daily Solar Flux Index, Sunspot number, Planetary K-index, Solar Flux predictions and Solar Flare data used in this bulletin have been collected by KØCF from the U.S. Department of Commerce's NOAA Space Weather Prediction Center.

The propagation graphs above are the creations of KØCF and are unique in space weather reporting.

NASA's current view of the Sun at a wave-length of 131 Angstroms. This wavelength shows incredible solar detail.

Click [here](#) or on the image to view as a full screen 48-hour video loop. It is fascinating!



Propagation Summary

For the 8 day period from Thursday, December 14th through yesterday, December 21st.

The average solar flux was up 35 points from the previous week, with a weekly high of 195 on Wednesday, December 20th, following a low of 144 on December 15th.

The average sunspot count was up 28 for the week, peaking at 163 on Saturday, December 16th after a weekly low of 126 on December 14th.

The Planetary K-index weekly average was 4.1 with a maximum of 6.0 on Monday, December 18th, resulting in moderate geomagnetic storm conditions.

Solar flare activity since December 14th has been moderate with 7 major flares, the largest of which was a major X 2.8 event on Thursday, December 14th.

Propagation Data

Major solar flares, Thursday, December 14th through 1440 UTC, December 22nd.

#	Date	UTC	Mag.
1	Dec 22	0004	M 3.3
2	Dec 21	0538	M 4.2
3	Dec 17	2017	M 1.1
4	Dec 15	0715	M 6.3
5	Dec 14	1702	X 2.8
6	Dec 14	1348	M 2.3
7	Dec 14	0744	M 5.8

(NOAA's graph of recent flare activity: [GOES-X-Ray-Flux](#))

From the NOAA Space Weather Prediction Center, here are the probabilities of major solar flares and the predicted 10.7 cm Solar Flux for the next 3 days. NOAA updates this information daily.

Date	M-Flares	X-Flares	Solar Flux
Dec 22	40%	5%	194
Dec 23	40%	5%	190
Dec 24	40%	5%	190

Looking farther ahead, here is the NOAA Space Weather Prediction Center forecast of 10.7 cm radio flux and maximum Planetary K-index (Kp) for the next 12 days. This data

is updated by NOAA only once a week, on Monday.

Date	Flux	Kp
Dec 22	136	2
Dec 23	136	3
Dec 24	140	2
Dec 25	145	2

Date	Flux	Kp
Dec 26	148	2
Dec 27	145	2
Dec 28	145	2
Dec 29	145	2

Date	Flux	Kp
Dec 30	145	3
Dec 31	150	3
Jan 1	145	3
Jan 2	140	3

Highs for Cycle 25

Solar Flux: 234 on January 15, 2023.

Sunspots: 227 on July 11, 2023.

Favorite Propagation web sites

Excellent Maximum Usable Frequency map: <https://prop.kc2g.com/>

<https://www.spaceweather.com/>

<https://www.solarham.net/>

<https://dx.qsl.net/propagation/>

A Propagation Tutorial

The solar X-ray flux tracks solar activity and solar flares. Solar flux, which can vary from as low as 50 to as high as 300, influences the level of ionization in the F2 region of the ionosphere, providing a very good prediction of HF DX conditions. The higher the solar flux, the better conditions will be for the higher HF frequencies and even 6 meters.

However, the levels need to be maintained for some days to allow ionization in the F2 layer to build up. A solar flux of 150 results in good HF band conditions, while levels of 200 and up can provide great conditions.

Large X-ray flares on the sun can increase the ionization of the D layer of the ionosphere (a lower layer) on the sunlit side of the Earth, greatly attenuating or blocking HF radio transmissions for up to a half hour. Solar flares often produce Coronal Mass Ejections (CMEs) which, if Earth directed, can lead to geomagnetic storms. Some large flares are also accompanied by strong radio bursts that may interfere with other radio frequencies and cause problems for satellite communication and radio navigation (GPS).

The Planetary K-index is a measure of the magnitude of geomagnetic storms and is an excellent indicator of disturbances in the Earth's magnetic field. A level of 1 or 2 represents quiet geomagnetic conditions; a reading of 3 or 4 may cause some propagation deterioration; 5 and 6 are minor to moderate geomagnetic storms; and 7 to 9 are strong, severe, and extreme storm conditions. Strong geomagnetic storms can trigger Auroral displays and cause HF radio blackouts. Higher geomagnetic activity also has the adverse effect of lowering maximum usable frequencies, much like lower solar flux does.

For best conditions, the solar flux should be above 150 for a few days with the K index below 2. When these conditions are met, some good DX is likely!

-[Compiled from information on NOAA.gov and other sources]

Contest Calendar

Contest	Start	End	Web Site
RAC Winter Contest	Dec 30 0000Z	Dec 30 2359Z	Rules

Stew Perry Topband Challenge	Dec 30	1500Z	Dec 31	1500Z	Rules
ARRL RTTY Roundup	Jan 6	1800Z	Jan 7	2400Z	Rules
ARRL Kids Day	Jan 6	1800Z	Jan 6	2359Z	Rules
YB DX Contest	Jan 13	0000Z	Jan 13	2359Z	Rules
North American QSO Party, CW	Jan 13	1800Z	Jan 14	0600Z	Rules
Hungarian DX Contest	Jan 20	1200Z	Jan 21	1200Z	Rules
North American QSO Party, SSB	Jan 20	1800Z	Jan 21	0600Z	Rules
ARRL January VHF Contest	Jan 20	1900Z	Jan 22	0359Z	Rules
CQ 160-Meter Contest, CW	Jan 26	2200Z	Jan 28	2159Z	Rules
BARTG RTTY Sprint	Jan 27	1200Z	Jan 28	1200Z	Rules
Winter Field Day	Jan 27	1700Z	Jan 28	1700Z	Rules
Vermont QSO Party	Feb 3	0000Z	Feb 4	2400Z	Rules
10-10 Int. Winter Contest, SSB	Feb 3	0001Z	Feb 4	2359Z	Rules
Mexico RTTY International Contest	Feb 3	1200Z	Feb 4	2359Z	Rules
Minnesota QSO Party	Feb 3	1400Z	Feb 3	2400Z	Rules
British Columbia QSO Party	Feb 3	1600Z	Feb 4	2400Z	Rules
North American Sprint, CW	Feb 4	0000Z	Feb 4	0359Z	Rules
CQ WW RTTY WPX Contest	Feb 10	0000Z	Feb 11	2400Z	Rules
ARRL School Club Roundup	Feb 12	1300Z	Feb 16	2359Z	Rules
ARRL Inter. DX Contest, CW	Feb 17	0000Z	Feb 18	2400Z	Rules
CQ 160-Meter Contest, SSB	Feb 23	2200Z	Feb 25	2159Z	Rules
North American QSO Party, RTTY	Feb 24	1800Z	Feb 25	0600Z	Rules
North Carolina QSO Party	Feb 25	1500Z	Feb 26	0100Z	Rules
ARRL Inter. DX Contest, SSB	Mar 2	0000Z	Mar 3	2400Z	Rules
Open Ukraine RTTY Championship	Mar 2	1800Z	Mar 3	1359Z	Rules
YB DX RTTY Contest	Mar 9	0000Z	Mar 9	2359Z	Rules
Oklahoma QSO Party	Mar 9	1400Z	Mar 10	2100Z	Rules
Stew Perry Topband Challenge	Mar 9	1500Z	Mar 10	1500Z	Rules
Idaho QSO Party	Mar 9	1900Z	Mar 10	1900Z	Rules
North American Sprint, RTTY	Mar 10	0000Z	Mar 10	0359Z	Rules
Wisconsin QSO Party	Mar 10	1800Z	Mar 11	0100Z	Rules
BARTG HF RTTY Contest	Mar 16	0200Z	Mar 18	0200Z	Rules
Russian DX Contest	Mar 16	1200Z	Mar 17	1200Z	Rules
North American SSB Sprint Contest	Mar 24	0000Z	Mar 24	0400Z	Rules

-[Contest data courtesy of the [WA7BNM Contest Calendar](#)]